

### **REMARKS**

In this Amendment, Applicant has amended Claims 1 and 2, and added new Claims 9 – 13 to specify different embodiments of the present invention and overcome the rejection. In addition, the specification has been amended in correspondence to the amendment of the claims. It is respectfully submitted that no new matter has been introduced by the amended claims and specification and added claims. All claims are now present for examination and favorable reconsideration is respectfully requested in view of the preceding amendments and the following comments.

#### **REJECTIONS UNDER 35 U.S.C. § 102:**

Claims 1 – 3 and 5 – 6 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by New (US Pat. No. 733,330).

Applicant traverses the rejection and respectfully submits that the presently claimed invention is not anticipated by the cited reference. More specifically, Claim 1 has been amended to specify the feature that “a throttling device is located in a gas flow route and controlled by pressure of the gas flow, wherein a cross sectional area of the gas flow of the throttling device reduces when pressure of the gas flow increases.” In addition, Claims 9 – 13 have been added to specify the features of connection lever, spring chamber and the gas flow discharge characteristics. These limitations are sufficiently supported by Fig. 1 and related descriptions in the specification, such as those on page 3, lines 14 – 19; page 3 line 5 through page 4; page 4 lines 23 – 24.

It is respectfully submitted that Schumacher does not teach or suggest the features of the present invention as currently defined. It is well-known that the self-energy of gas flow comprises: heat energy (temperature); kinetic energy (flow speed); potential energy (pressure); etc.. A throttling device to be controlled by different self-energy of gas flow achieves different technical results. More specifically, New (US Pat. No. 733,330) only teaches a throttling device controlled by flow speed (kinetic energy) of gas flow. The funnel-mouth G is the energy sensor in New. The force of the gas flow on funnel-mouth

G is the gas flow resistance, which is also the force impacted on the throttling device. This force relates only to the speed of the gas flow, e.g. when the speed of gas flow is zero, the force is zero. However, this force is not related to gas flow pressure. In other words, under the same gas flow speed and different gas flow pressure, this force is the same. To the contrary, as the amended claims defined, the throttling device is controlled by pressure of the gas flow in the present invention.

In addition, according to New, the throttling device controlled by self-energy is not a pressure reducing valve structure. The pressure reducing valve structure is a kind of throttling device control by self-energy of gas flow and it must perform two tasks at the same time by reducing air pressure at both a flow state and a static state. Obviously, the throttling device according to New cannot perform the task of reducing pressure of a pressure reducing valve structure. Therefore, the device in New is not a pressure reducing valve structure.

Furthermore, it is respectfully submitted that the two muffling projects of the present invention and New are based on very different principles. As explained in the response filed on March 5, 2007, in the present invention, the peaks of the gas flow wave are selectively throttled, while the wave valleys of the gas flow are not. The throttled wave peaks are kept at the gas inlet and previous channels to elevate the wave valleys. After the process of reducing peaks and filling in valleys, the shape of the gas flow wave is completely change to basically straight. The effect of reducing noise is significant. The present invention solved the difficult problem of reducing noise in low frequency gas flow. These solutions and characteristics are not taught or suggested in New or other references.

The muffling principle of New is as follows. The exhausted gas from the engine firstly enters into a closed chamber B, then the gas of the closed chamber B is enabled to escape to the atmosphere. Noise reducing effect comes from gas expansion between engine and closed chamber B. On the other hand, the valves H, H' of New are only used as switch of gas flow and they are not used as throttling devices. In addition, New do not

teach or suggest achieving noise-reducing effect by a throttling device. Furthermore, New does not teach or suggest the embodiments in the newly added claims.

Therefore, the newly presented claims are not anticipated by New. and the rejection under 35 U.S.C. § 102(b) has been overcome. Accordingly, withdrawal of the rejection under 35 U.S.C. § 102(b) is respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 103:

Claims 4, 7 and 8 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over New in view of Schumacher (DE 100 20 491.0, as translated in US Pub. 2002/0175022) and further in view of Murray (US Pat. No. 3,219,144).

Applicant traverses the rejection and respectfully submits that the embodiments of present-claimed invention are not obvious over New in view of Schumacher and further in view of Murray. The significant differences between the present invention and New have been discussed as above. In addition, Schumacher and Murray have not disclosed the newly added features as previously discussed in the response filed on March 5, 2007. Due to above indicated differences, there is no motivation or reasonable expectation of success to combine New with Schumacher and/or Murray. Therefore, Even if they are combined, a person of ordinary skill in the art will not discern the present invention at time of its invention.

Therefore, the newly presented claims are not obvious over New in view of Schumacher and/or Murray. The rejection under 35 U.S.C. § 103 has been overcome. Accordingly, withdrawal of the rejections under 35 U.S.C. § 103 is respectfully requested.

Having overcome all outstanding grounds of rejection, the application is now in condition for allowance, and prompt action toward that end is respectfully solicited.

Respectfully submitted,

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